Department for Business Innovation & Skills

Cabinet Office
Behavioural Insights Team

midata

Impact Assessment for midata

 # midata

#opendata

Contents

Title: Order making power for midata

IA No: BIS0386

Lead department or agency:
BIS

Other departments or agencies:
Cabinet Office, MoJ, DECC

Impact Assessment (IA)

Date: 17/10/2012

Stage: Final

Source of intervention: Domestic

Type of measure: Primary legislation

Contact for enquiries:
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Summary: Intervention and Options

RPC Opinion: GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANCB on 2009 prices)	**In scope of One-In, One-Out?**	**Measure qualifies as**
0	0	0	No	NA

What is the problem under consideration? Why is government intervention necessary?

Information asymmetry between consumers and businesses can exist where firms collect data about their customers' transactions but do not make it easily available to them. This asymmetry can put consumers at a disadvantage if it means their purchasing decisions are based on incomplete information which can inhibit their ability to compare tariffs, switch to better deals, spur competition, and improve their consumption patterns. While individual firms may be willing to make personal transactional data available, they are unlikely to do so if they believe it will lead to a competitive disadvantage because other firms will not follow suit. Hence Government has a role in ensuring all relevant firms in a sector release information on a consistent basis. Government intervention would only require firms to release data, on request, if they already collect it; firms will not be required to release information that they do not ordinarily collect.

What are the policy objectives and the intended effects?

Giving consumers access to their transaction data will enable consumers to make better informed decisions and choose products which offer them the best value. This in turn will reward firms offering the best value because they will be able to win more customers, increasing competition and leading to lower prices, improved efficiency and greater innovation. It will allow consumers to analyse and then improve their consumption patterns, particularly by enabling third party 'choice engines' to process transactional data on behalf of consumers and advise them on their consumption habits and potential switching options. We expect the release of information to stimulate innovation in and expansion of third party choice engines.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Do nothing: The existing voluntary approach has led to some new releases of data to consumers but not a step change. If allowed to continue this is unlikely to realise the full benefits from midata.

Wait for new EU Data Protection Regulations: Currently under negotiation but potentially much broader than the proposed power in this IA, although final content cannot yet be known. The legislation is unlikely to be implemented until 2016, leading to a long delay.

Order making power (preferred option): An order making power for the SoS to compel suppliers of goods and services to supply to the consumer, at their request, their transaction data in a machine readable format. The power is enabling legislation, which requires secondary legislation in relevant sectors.

Order making power with cost recovery: As above, but with a nominal charge to consumers to cover costs.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** 09/2016

Does implementation go beyond minimum EU requirements?			N/A		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	**Micro** No	**< 20** Yes	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)			**Traded:** n/a	**Non-traded:** n/a	

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible SCS Economist: Chris Jenkins Date: 17/10/2012

Summary: Analysis & Evidence

Policy Option 1

Description: Order making power for midata

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2012	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	**High:** Optional	**Best Estimate:** 0

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate	0		0	**0**

Description and scale of key monetised costs by 'main affected groups'

For illustrative purposes we surveyed firms across a range of sectors to estimate costs but, as this is an order making power, any costs will only be incurred if the power is used. The combined equivalent annual net cost to business is estimated at less than £5 million for banking, energy and post-pay mobile phones. Energy and banking have a low cost per consumer at less than £0.10. Telecoms and retail are estimated to have larger costs, with some estimates of costs per consumer as high as £2.

Other key non-monetised costs by 'main affected groups'

Where businesses already collect or store the data in the relevant form, the additional costs will be low. If invoked, the proposed duty would only apply to those firms who already collect data electronically. However, where businesses do not already prepare the data in a relevant form, the costs could be more substantial and will vary by the nature of their IT systems.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate	0		0	**0**

Description and scale of key monetised benefits by 'main affected groups'

Potential benefits to consumers from increasing switching rates have been estimated in various example sectors but, as this is an order making power, they are not reported as monetised benefits in the cover sheet. A one percentage point increase in switching rates in domestic energy, personal current accounts and post-pay mobile phone users could yield consumer benefits of £20 million, £38 million and £60 million respectively.

Other key non-monetised benefits by 'main affected groups'

We have identified five main expected non monetised benefits: Cost savings to consumers; Increases in competition and innovation; New and expanding 'infomediary' markets; Less prescriptive product/tariff regulation; Changes in consumption patterns. Releasing personal data has the potential to have a transformative impact on consumers' engagement with markets, and could lead to significant innovation by third party providers offering different ways of interpreting and combining personal transactional data.

Key assumptions/sensitivities/risks **Discount rate (%)** 3.5

Consumer transaction data held by firms can be valuable commercial information. There is a risk that the existence of a power to compel firms to release this data to consumers may reduce their incentive to collect the information. To minimise this risk the power will only refer to 'raw' factual information. Any extension of the sectors beyond energy, mobile telecoms and personal banking/ credit cards will be subject to criteria aimed at promoting price transparency. Consumers will have more of their information in an easily accessible format this could pose a risk of an increase in identity theft or fraud.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:				In scope of OIOO?	Measure qualifies as
Costs: 0	**Benefits:** 0	**Net:** 0		No	NA

Background

1. The Coalition set out in its programme for Government: 'We need to promote more responsible corporate and consumer behaviour through greater transparency and by harnessing the insights from behavioural economics and social psychology.'
2. To explore this, the Government launched its consumer empowerment strategy, *Better Choices: Better deals* on 13 April 2011.The strategy sets out ways for the Government and others to help empower consumers; midata was a key project in the strategy. Midata will help address some of the knowledge imbalances that exist between business and consumer, thus[1]
    - 1) empowering consumers who will be better able to compare complex tariffs and switch to better deals therefore stimulating competition (the '**empowerment effect**')
        - Consumers will be better able to exercise choice. With access to their transaction data, consumers will be able to make better informed decisions and choose those products which offer them the best value. This in turn will reward firms offering the best value in particular markets, allowing them to win more customers and so drive competition.
        - Businesses will be given a platform for innovation. With the increasing availability of data, new mobile applications are being developed which promise to help consumers by providing them with targeted information to help them make better decisions. Midata promises to further boost innovation by stimulating the development of new ways to use personal data.
        - Increased data transparency could also have a deregulatory effect by facilitating greater consumer choice. Giving people access to their consumption data in a format which is machine readable may make it possible to avoid the need for some types of market interventions by regulators, for example specifying product characteristics. This would mean that the midata initiative could have an overall deregulatory impact.
    - 2) enabling consumers to improve their consumption patterns by analysing their consumption and associated costs over time (the '**consumption effect**').
        - Assisting consumers to choose the products and services most suited to their own lifestyles and helping them to obtain the best deals they can, making the most of their income.
        - Enabling consumers better to understand the relationship between their spending patterns and a range of factors from carbon usage to the nutritional value of their food shopping, promoting improved lifestyle decisions.

Problem under consideration

- **1) Asymmetry of information**

3. Modern IT means that businesses can collect data about their customers' purchases and characteristics simply through recording their transactions or through loyalty cards.
4. This data may create an information asymmetry whereby businesses know more about their customers' consumption habits than they do. A business could use this information to tailor products or offers that it knows its customers will value. On the other hand, it raises the possibility that a business could use this advantage to construct offers or tariffs that consumers will over-value or fail to grasp the cost to them. For example an energy customer may see on their bills how much energy they consume and when, but may find it very difficult to use this data to

[1] http://www.bis.gov.uk/assets/biscore/consumer-issues/docs/m/12-943-midata-2012-review-and-consultation.pdf

understand the cost of competing tariffs, unless it is identical to their existing tariff structure. This is because tariffs involve multiple factors such as fixed and variable costs, time of day, volume of consumption. Evidence shows that over 300 tariffs exist[2].

5. This asymmetry of information could lead to consumers failing to choose the best value product or service for them. With access to consumption data in an electronic, machine readable format an individual could use data about their actual usage, perhaps in conjunction with a third party provider, to compare available products and services to and decide which is the best one for them.

- **2) Lack of switching and consumer empowerment**

6. Empowered consumers using relevant information are a key driver of competition which leads to lower prices and improves efficiency and innovation.
7. When consumers consider switching they compare the benefit of switching with the cost or trouble of doing so. In some markets switching is perceived to be confusing and time consuming. Behavioural economics teaches us that in such cases people are unlikely to switch even if the benefits from doing so are quite large. Consumers will be less likely to switch if they do not have adequate information to estimate the benefit of doing so and also if it is a difficult or convoluted process. Applications that make information more easily available and reduce the difficultly, both real and perceived, of switching increase the likelihood of having more active consumers.

- **3) Absence of standards**

8. It is well known that in sectors such as ICT, consistent standards play an essential role in ensuring interoperability. Such standards can serve to increase network effects, promoting take-up and innovation. For example a recent review of the literature on standards found evidence that government-coordinated standards facilitated growth and innovation more commonly than they inhibited it[3] provided the standard was well designed.
9. While many businesses make consumption data available to their customers the data is not provided to a common standard that makes comparison easy. Some price comparison providers argue that the absence of a standard is inhibiting the development of a sector to help consumers use their personal transaction/consumption data to compare products.
10. While the private sector could, in principle, provide a standard, one has failed to materialise so far. This may be due to a coordination issue; an individual business may see little benefit from releasing useful personal transaction/consumption itself because it could create a competitive disadvantage if its competitors do not follow suit and only its own customers can compare prices easily.
11. It is possible for a common standard to emerge in a market without any Government intervention however this has not happened so far for the provision of data to consumers. It looks unlikely that a consistent standard will emerge without Government intervention. It is important that any Government intervention does the minimum required to ensure a consistent standard of data being released while not preventing innovation around the exact format of the data. For this reason the Government is proposing to set a standard that data should be released in "an electronic machine readable format" and not to specify any other standards.

Rationale for intervention

12. Government intervention is necessary to 1) reduce consumers' asymmetric information problem, 2) support efficient switching and 3) support standards.

[2] http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR_Appendices.pdf para 1.36

[3] http://www.bis.gov.uk/assets/biscore/innovation/docs/e/10-1135-economics-of-standardization-update.pdf

Asymmetry of information

13. Compelling a business to provide, on request, the transaction data they hold on consumers in electronic machine-readable format will reduce asymmetric information. This will provide consumers with information in a format they can make use of, thereby putting competitive pressure on firms to provide cheaper and better products and improving productivity.
14. Consumers already have the legal right under the Data Protection Act to request a copy of their personal data which is held by businesses. However, accessing this data does not generally occur in real time (taking up to 40 days) and the legal requirement is that the data be provided in an 'intelligible' rather than electronic format. Providing the information in an electronic, machine readable format will reduce cognitive and action costs for consumers. This will allow consumers to make better choices and secure better deals.

Lack of switching and consumer empowerment

15. Empowered consumers are an important part of the process of competition. To harness the full benefits of competition, both sides of the market (business and consumers) must be active. Therefore consumers must be empowered and actively prompt rival firms to offer new and better goods and services. Competition is a key driver of productivity. Government has a role to support the drivers of productivity where they are impeded by market failures such as asymmetry of information and also where there are positive spill over effects.

Standard setting

16. Making more information/data available should help address some of the problems caused by the asymmetry of information and the lack of consumer empowerment. It is also important to make sure this data is released in a form which allows comparability between different products/services and providers.
17. So far no consistent standard for the release of data has emerged. This could be for a number of reasons:

    - **Competitive disadvantage**: While all firms in a sector may be willing to make consumers' transactional data available, an individual firm is unlikely to do so if it believes it will create a competitive disadvantage that its competitors can exploit (i.e. there is no first mover advantage).
    - **Positive spillovers**: individual incumbent firms are unlikely to value the positive spillovers of competition and new entrants with new business models that a midata standard might facilitate.
    - **Inefficiency/cost**: While some private sector firms are trying to facilitate a midata type of service (such as Yodlee[4]) this may be costly where they have to accommodate large numbers of different data formats and insufficient progress is made to generate a critical mass.

18. For these reasons it looks unlikely that a consistent standard will emerge without Government intervention. It is important that any Government intervention does the minimum required to ensure a consistent standard of data being released while not preventing innovation around the exact format the data is available in. For this reason the Government is proposing to set a standard that data should be released in an electronic machine readable format and not to specify any other standards.

[4] **Yodlee** transforms data and insights into scalable personal financial management solutions for banks, entrepreneurs & the people they serve www.yodlee.com

Policy objective

19. The objective of midata is to give consumers access to their own information in an electronic, machine-readable format so they can easily use it to make the best choices. This will be done by an order-making power for the Secretary of State through which a right for consumers to request their personal transaction data in a machine readable electronic format can be established.
20. The power will apply across the whole economy because there are likely to be strong synergies across sectors; transactional consumption data is likely to be increasingly valuable to consumers the more that is available for analysis and comparison across and between sectors. However when it is enacted in secondary legislation, the requirement could be limited to certain core sectors or business types, and before extension to wider sectors criteria relating to improving price transparency must be met. In all cases the power will apply only where data is already held in an electronic format.
21. The release of consumers' transactional data is expected to 1) Empower consumers and therefore increase competition and 2) help consumers improve their consumption patterns.
22. Data release also opens up opportunities for new markets and information products to develop. While these are not necessarily entirely additional, as consumers may divert attention or activity away from existing interests, these new markets will help consumers use their data to make better consumption decisions. As well as in other ways to manage their lifestyle which do not currently exist, perhaps by combining data from a number of sources. Providing consumers access to their data would create a strong potential growth market of which the UK as a leading provider of digital systems and services would be well placed to take advantage.

The power

23. The power (when enacted by secondary legislation in sectors) will enable consumers to have access to their own, existing, transaction data only where:
    - it is already held by the firm in machine readable form
    - where the data contains an existing and clear personal identifier linking the data to the individual, such as a home address, email or account registration
    - the data is held is certain core sectors e.g. energy supply, credit cards/current accounts and mobile phones
    - the availability of data to customers will promote price transparency
24. It specifically excludes:
    - value-added data analysis by the business ('their data')
    - mass requests by third parties (though consumers could specifically authorise the release of their data to an ICO recognised secure third party)
    - fragmented data sets that are not linked by a simple common identifier
    - micro businesses

Options considered

Do nothing

25. Since April 2011 midata has been pursued on a voluntary basis with a focus on the energy, finance and telecoms sectors. Progress has been made as the six largest retail energy providers agreed to provide their customers with data in an electronic, machine-readable format. However this involved significant Government resource and progress was not as rapid as hoped, with some suppliers slipping well behind the agreed target delivery date. The Government wishes to

move more quickly to broaden out midata to other sectors and realise the associated consumer benefits and opportunities for growth and innovation. Moreover, the most helpful and valuable services are likely to be built on a range of data sets. On its own the voluntary programme does not have the scope or capacity to trigger these and so consumers will receive less benefit and insight.

26. Progress on a fragmented sectoral basis is not likely to provide the necessary stimulus in terms of data availability for the development and growth of a wide range of insightful services. The lack of such a domestic market will put UK business at a disadvantage compared to companies from countries such as the US where sharing personal data is becoming increasingly common. This is predicted to be one of the big growth markets of the future.
27. The programme's independent Chair, Professor Nigel Shadbolt[5] has advised that "for individuals the costs of gathering and processing their own personal data for their own purposes are currently so high that few do so." In his view working solely through the voluntary programme is unlikely to change that in a way that results in a mass-scale, permission and trust based sharing of electronic data, which he believes will be an essential cornerstone for an efficient, innovative 21st century economy able to compete effectively on the future global stage.

Amendments to Data Protection Act

28. The EU has proposed a new data protection regulation to update the law. Proposals include making data available electronically if requested, and introducing a right to data portability. As currently conceived, the data sets involved would be much broader than under the proposed power. The outcome of the European negotiation cannot be certain; and the legislation is unlikely to be implemented until 2016. This would lead to a long delay as well as uncertainty in the objective and design of legislation which increases uncertainty over whether the benefits from midata would be realised.

Order making power (preferred option)

29. An order making power for the Secretary of State to compel suppliers of goods and services to supply to the consumer, at their request, their historic transaction data in a machine readable format. The order making power is enabling legislation. To use the power a Secretary of State would have to enact secondary legislation. Each time secondary legislation is enacted further scrutiny including IAs will be required. This IA summarises the high level costs and benefits in case study sectors but does not seek to anticipate later decisions on the sectors which would be covered by secondary legislation.

Order making power with cost recovery

30. An order making power with cost recovery would enable the Secretary of State to compel suppliers of goods and services to supply to the consumer, at their request, their historic (or of a specific duration) transaction data in a machine readable format. The order making power is enabling legislation. To use the power a Secretary of State would have to enact secondary legislation. The information would be provided by businesses with a nominal charge to consumer for cost recovery. The current data protection legislation allows for a nominal fee of up to £10.
31. The imposition of a fee, how ever small, creates a barrier to the consumer requesting their transaction data. Evidence from Which? The Big Switch demonstrates that placing any barriers to switching discourages consumers from seeking cheaper prices. Another example about the impact of even very small charges on consumer behaviour comes from Amazon; Amazon.com started offering free shipping of orders over a certain amount. This lead to a large increase in sales everywhere except in France, where instead of free shipping customers were charged one franc (about 10 pence). Although this is objectively a very small difference from free shipping,

[5] http://users.ecs.soton.ac.uk/nrs/

when Amazon changed the promotion in France to include free shipping, France joined all the other countries in a dramatic sales increase[6].

32. Price comparison sites are usually free at the point of use because consumers are less inclined to pay for these services until they can see a tangible benefit. A charge would reduce the benefits to business and the consumer from the order making power.
33. The majority of businesses that responded to the consultation felt that there should be a charge for providing the data to consumers to dissuade frivolous requests and to cover administration costs. However, a significant minority of businesses felt that the rightful ownership of the data was with the consumer and so it would not be appropriate to provide at a cost.
34. On the whole consumers believed that the data should be available at zero cost.

Types of business that might be affected

35. Businesses in scope would be those that already collect and store individual customers' transaction data electronically. Businesses that do not store the data and micro businesses would not be in scope.

Types of business that may already hold personal transaction data

36. In many cases businesses will already hold personal transactional/consumption data in order to correctly bill customers. This is most likely for businesses that have ongoing relationships with customers. Examples of these include utilities and online retailers where some kind of registration or account is likely to be in place which allows the firm to track consumption or purchases over time.
37. The data is likely to be held by many different types of businesses in the UK and so potentially the majority of medium and large businesses could be affected. However not all large businesses will already collect such information. For example, a large retailer is unlikely to keep a record of what each individual customer purchases and track that over time unless that customer uses a loyalty card or storecard.
38. In some sectors, micro-businesses are the least likely to collect such data because the costs of storing and processing are likely to exceed the benefits. Moreover they may not have an ongoing digital relationship with their customers. For example a small retailer may predominantly have one-off customers or is less likely to keep electronic records of the purchases even of their regular customers.
39. Micro businesses will be exempt from providing personal transaction/consumption data which leaves around 210,200 businesses[7] at most that might be in scope of the powers. They have an annual turnover in 2011 in excess of £2 trillion. However, many of these businesses will not be consumer-facing and have purely business to business transactions. These businesses would be out of scope of midata and so the number of businesses in scope is likely to be an overestimate. The precise scope will only be determined at the point when Government decides to make use of the power through secondary legislation, and could apply this only to a smaller subset of businesses.

Benefits

40. The logic model in Figure 1, developed by ICF/GHK[8] illustrates the relationships between consumer empowerment and ultimately economic growth. The role that midata may play in promoting economic growth is encompassed within this logic model. For example, as a result of voluntary or compulsory data release, comparison/choice tools are expected to develop, leading to greater transparency, reliable product information and consumer awareness. The outcomes of

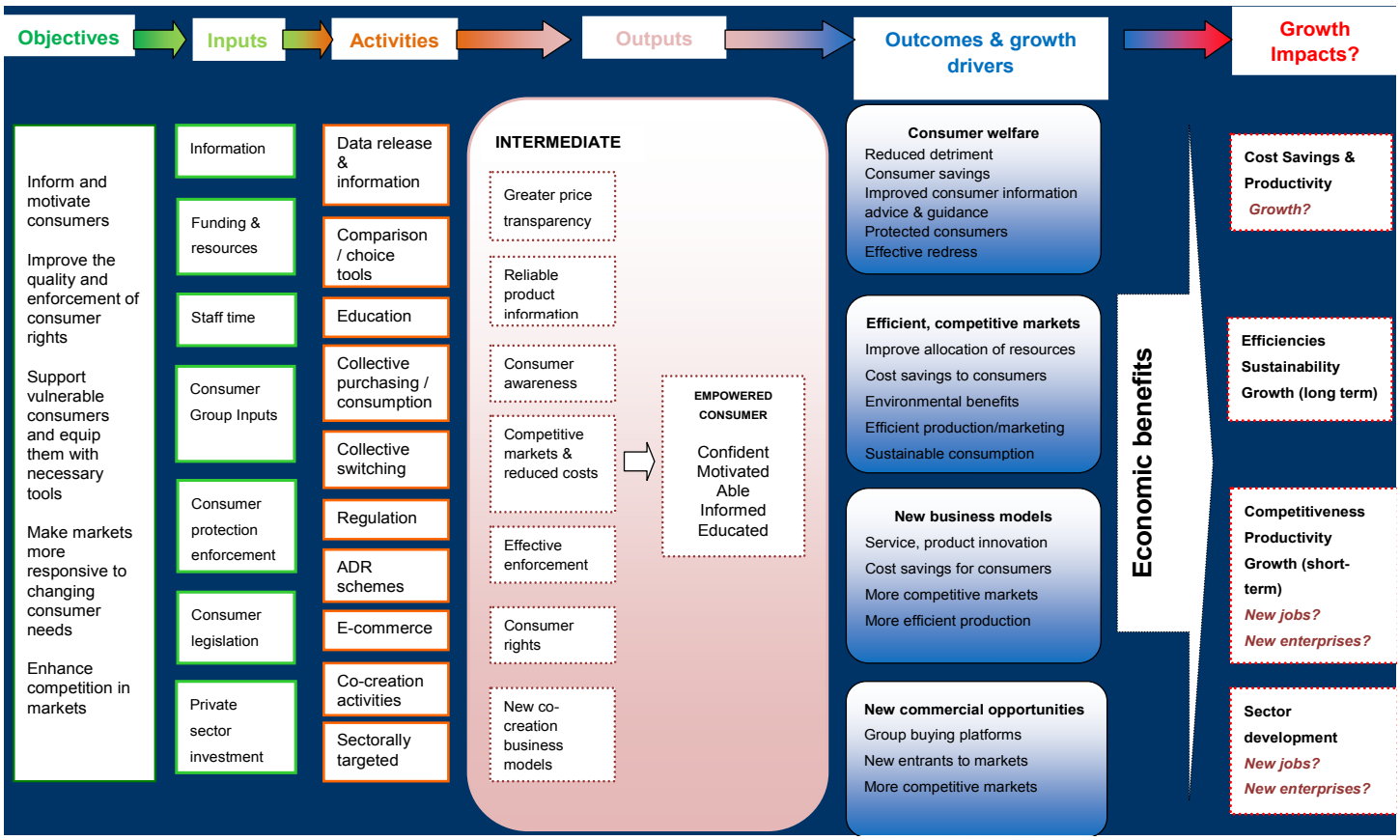
[6] Ariely D (2008) Predictably Irrational: The hidden forces that shape our decisions

[7] Business Population Estimates for the UK and Regions http://www.bis.gov.uk/analysis/statistics/business-population-estimates

[8] http://www.bis.gov.uk/assets/biscore/consumer-issues/docs/e/12-977-empowered-consumers-and-growth-literature-review.pdf

this should be increases in consumer savings, reduced detriment, and in the longer term increases in competition, innovation and enterprise. This will stimulate productivity and increase economic growth.

Figure 1: Logic model of consumer empowerment and the impact on growth



41. There are two additional ways in which releasing personal transactional data is expected to generate economic benefits. Firstly, accessing analysis on personal transactions and consumption patterns will benefit consumers by helping them make decisions based on more accurate information. Secondly, midata can have an overall deregulatory impact; greater transparency of transactions and tariff data may mitigate the need for more specific product interventions and mandated disclosure by sector regulators thereby reducing the future regulatory burden.
42. In light of the above, this impact assessment has sought evidence against the following positive impacts:
    - Empowerment benefits
        - Cost savings to consumers;
        - Increases in competition and innovation;
        - New and expanding 'infomediary' markets;
        - Less prescriptive product/tariff regulation;
    - Consumption pattern benefits
        - Changes in consumption patterns.

Evidence Overview

43. The UK would be among the first countries to require companies to release personal data to individuals in an electronic, machine readable format. There is therefore a lack of international evidence that might give an indication of the likely benefits. There are some examples, in particular from the US (e.g. The Green Button[1]), of voluntary initiatives that would be expected to have similar impacts, however these are generally too recent to have been fully evaluated.

44. We have used a range of evidence, such as estimates of the potential savings from switching, qualitative estimates of the demand for midata, and a review of evidence on the link between consumer empowerment (of which midata is an example) and economic growth. Taken together this evidence illustrates the potentially large, albeit uncertain, benefits of the proposed power.

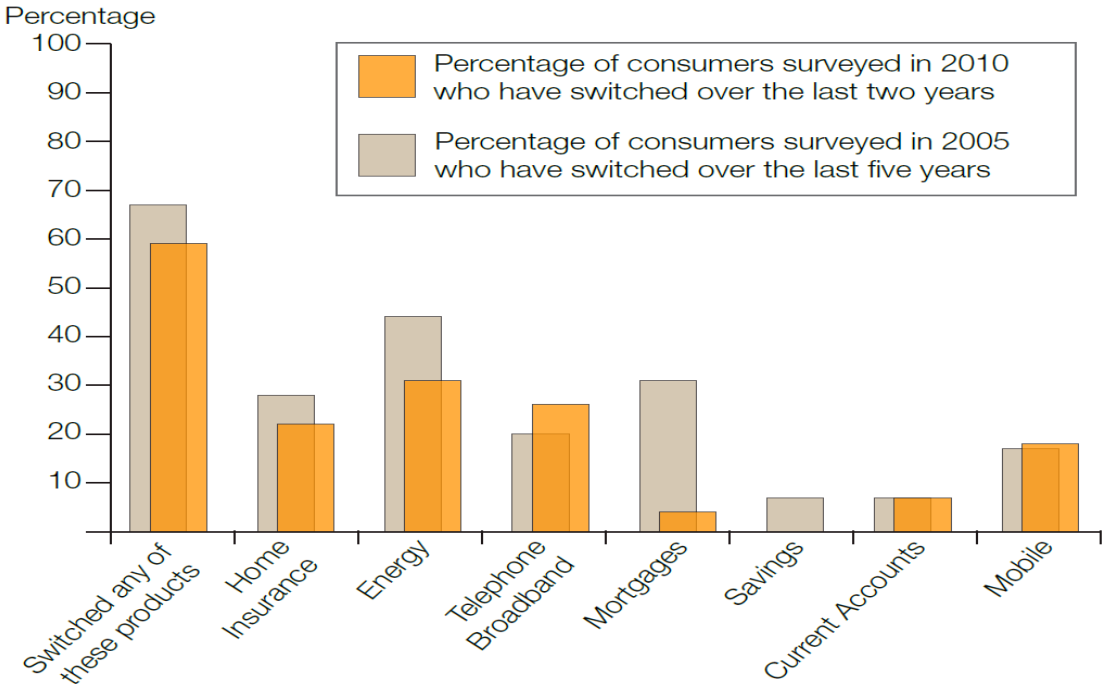
Consumer Switching

45. The scale of the potential benefits from cost savings and competition is contingent on consumers' engagement with the data and the future applications that develop to use that data. Consumer switching is a large part of this and, whilst there are already comparison and switching services, there remain barriers to consumer engagement as well as the current data limitations we are proposing to address.
46. In 2010, Consumer Focus[2] commissioned ICM to survey rates of switching across different industries, and compared these to previous data such as the 2005 NCC Active Consumer Index. While switching is significant across many industries, there is scope for a greater proportion of consumers to switch and put competitive pressure on firms (although it is difficult to compare over time as the data is different).

[1] http://www.greenbutton.com/About

[2] Consumer Focus (2010) – Stick or Twist: An Analysis of Consumer Behaviour in the Personal Current Account Market

Figure 2: Switching behaviour comparing data in 2005 and 2010



Source: Consumer Focus, 2010

47. The ICF/GHK Consumer Empowerment report for BIS[3] reviewed a range of literature on consumer empowerment and found a reasonably consistent set of barriers to switching. These findings are synthesised here. Research[4] conducted by Ofcom (2006b), the UK National Consumers Council (2006) and OECD (2007) suggests that in the telecommunications sector there are a range of important deterrents to switching, including:

    - Lengthy and cumbersome switching procedures can make it inconvenient for consumers to switch and can outweigh any potential benefits;
    - Early exit charges, imposed by an existing provider, can reduce the benefits of switching;
    - Confusing products and non-transparent pricing can make it difficult or time consuming to compare deals (as in the case of mobile telephony and the Internet);
    - Technical incompatibility of equipment can make it uneconomical for consumers to switch and,
    - Long-term deals can lock consumers into lengthy relationships with their providers (as may occur with mobile telephony and internet contracts) and increase the risk of them being overcharged.

48. In addition to these reasons, there is likely to be a barrier which comes from consumers' perceptions that switching is difficult and will involve a lot of 'hassle'. This hassle combined with other costs such as exit charges will act to reduce switching even when there are potential savings available.

49. Complexity and a lack of transparency were also found to be barriers to switching in research conducted by the OFT (2008)[5] on the personal current account (PCA) market. In this market, only six per cent of customers had switched in the last year, in spite of 69 per cent believing that there are probably better alternatives to their current account. In the energy sector, Ofgem[6] found that fewer than one in five domestic energy consumers are 'active' and regularly seek out

[3] http://www.bis.gov.uk/assets/biscore/consumer-issues/docs/e/12-977-empowered-consumers-and-growth-literature-review.pdf

[4] Referenced in OECD (2008) Enhancing competition in telecommunications: protecting and enhancing consumers (Ministerial Background Report)

[5] OFT (2008) - Personal Current Accounts in the UK

[6] Energy Supply Probe, Ofgem, 6 October 2008

competing price offers and switch on the basis of a good understanding of the range of offers available.

How electronic, portable and machine-readable data may reduce the barriers to switching

50. Midata will make it much easier to use price comparison and switching services. In the Big Switch (a reverse auction for collective buying of domestic energy) almost 290,000 signed up to the initial light touch registration. However, only 165,171 people provided their current tariff and usage information - equating to a drop-out rate of 42 per cent. Electronic machine readable data should reduce these types of friction cost by a substantial degree.
51. The Ofgem Retail Market Review[7] suggests that in 2010, 12 per cent of consumers who switched felt they were paying more than if they hadn't switched (down from 20 per cent in 2008). Wilson and Waddams Price (2006) found that of those who do switch about a third ended up on a worse deal; such consumers lost an average amount of between approximately £13 and £25 per year, even when any additional switching costs are excluded[8]. These risks are increasing with the greater complexity and number of different tariffs to choose from. For example, since 2008 the total number of energy tariffs has increased by over 70% to over 300. Ofgem 2008 consumer survey found that 70% of consumers found the number of tariffs on offer confusing[9]. Greater use of price comparison tools, informed by more accurate personal data, should help consumers compare tariffs realistically and reduce the chance of consumers switching to the wrong tariff.
52. Of course midata will address some but not all of these barriers to switching. While midata will not directly affect some barriers to switching such as early exit charges or technical incompatibility it can be expected to increase switching overall by giving consumers better access to their own transaction data. This data would allow consumers to more accurately assess alternative offers. It will also allow third party providers to take the consumer data and advise consumers directly on possible switching opportunities. This should make the benefits of switching clearer, and allow presenting and combining data in more engaging ways.

Wider applications of midata

53. Research undertaken on behalf of the midata Strategy Board [10] included qualitative and quantitative surveys to assess the potential demand for midata and understand consumer attitudes. This found that, although many consumers did not immediately see the relevance of having access to their personal data in electronic form, once people had started to think about their data they were interested in the potential benefits of a range of applications. The results are summarised in Figure 3 below.

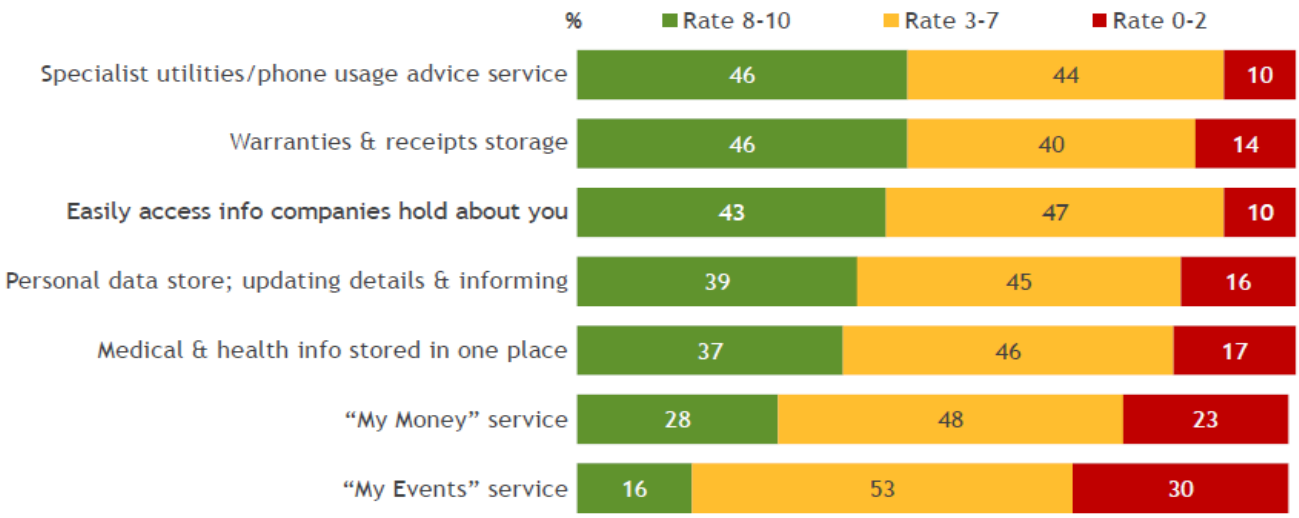
[7] http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR_Appendices.pdf

[8] Waddams, C and Wilson, C, 2006, Do Consumers Switch to the Best Supplier? Available at http://else.econ.ucl.ac.uk/conferences/consumer-behaviour/wilson.pdf

[9] http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR_Appendices.pdf

[10] Jigsaw Research– Potential Consumer Demand for midata - http://www.bis.gov.uk/assets/biscore/consumer-issues/docs/p/12-976-potential-consumer-demand-for-midata

Figure 3: Respondent interest[1] in potential midata applications



1. Further breakdowns of categories are available upon request to BIS

Source: Jigsaw, research for midata Strategy Board. Q10 – How appealing would you find it to be able to do each of the following online services on a scale of 0-10 where 0 is extremely unappealing and 10 is extremely appealing? Sample size=1002

54. This suggests that if personal transactional data was made available there would be consumer demand for a range of applications. The findings suggested that saving time, money, and making their lives easier were the most salient benefits.

55. The research also highlighted that consumers were concerned about the risks typically associated with the release of personal data, such as identity theft and data sharing without consent. It suggested that the most compelling reassurances would be guarantees that data could not be used without permission, and that secure passwords and encryption would be in place. In the qualitative research, most participants wanted to see Government take a leadership role in policing midata and ensuring that safeguards would be in place to protect consumers (see also the risks section).

56. To get the full benefits from releasing transactional data, it seems likely that consumers will need to be educated about the benefits it can bring, and reassured about data security. There is likely to be a role for intermediaries and perhaps some consumer groups, to help consumers begin to use, and benefit, from the information which would be available to them.

Cost Savings to Consumers

57. There are a range of estimates of the consumer savings that could be made by people switching in different markets. These estimates tend to vary greatly according to the type of consumer in question.

58. The OFT (2008)[11] modelled the potential savings from switching personal current accounts for different consumer profiles. The savings vary considerably depending on how the consumer uses their account, with those having high credit standing to gain significantly from switching.

[11] OFT (2008) - Personal Current Accounts in the UK

Figure 4: Estimates of savings from switching personal current accounts, for different consumer profiles

Profile	Switch from average to best account		Switch from worst to best account	
	1 year	10 years	1 year	10 years
Typical credit without unarranged overdraft	£56	£562	£63	£632
Typical credit with unarranged overdraft	£51	£511	£69	£688
Typical debit without unarranged overdraft	£39	£388	£50	£505
High credit	£102	£1016	£114	£1143
High debit with unarranged overdraft	£76	£764	£112	£1122
Marginal credit	£27	£271	£30	£305

59. In their Retail Market Review (2011) Ofgem estimated the potential savings from switching energy providers. Figure 5 shows the estimated total savings over 2010 that a customer of the Big 6 could have made had they switched to the direct debit tariff of the supplier who, over the course of 2010, would have been cheapest.

Figure 5: Average savings over 2010 per customer if moved to supplier with lowest direct debit at the start of 2010

Switch from	Dual fuel	Electricity-only	Gas-only
Direct debit	£ 160 - 196	£ 27 - 86	£ 5 - 36
Standard credit	£ 236 - 323	£ 59 - 117	£ 25 - 82
Prepayment	£ 237 - 293	£ 66 - 109	£ 42 - 66

Source: Ofgem analysis using The EnergyShop.com information and supplier's account information

60. Which? Estimated the average savings made through the Which? Switch to be £237. With the Big Switch, the majority of people (approximately 200,000 households) could have made a saving of £123 a year. The 37,770 people who switched via the Big Switch had an average annual saving of £223.
61. Billmonitor estimates that 74 per cent of UK mobile users with a contract spend an average of £171 more each than they need to every year, equating to almost £6bn per year. This is particularly attributed to the fact that, due to a lack of information, most consumers are on excessively large contracts (56 per cent of customers using only one third or less of their monthly calling or data allowance). In the US, two studies have estimated that consumers could save more than $300 per year by switching to the right mobile/wireless plan (CUB (2009)[1] and BillShrink (2011)[2].

[1] http://www.citizensutilityboard.org/newsReleases20090817_SurvivingTheCellPhoneJungle.html
[2] http://www.billshrink.com/blog/press-releases/americans-overpay-336-a-year-on-wireless/

62. We have not found any evidence which attempts to quantify the impact that comparison websites may have had on consumers' tendencies to switch or resultant savings – although it is plausible to assume that price comparison sites have had a significant impact in some markets (e.g. financial products). While there is evidence that the benefits of switching may be significant (such as the Big Switch), and the theoretical evidence is strong, there is a lack of direct evidence on whether midata (as a new concept) would prompt consumers to switch.

The benefits from increases in the proportion of consumers that switch

63. At the moment switching rates in many sectors are quite low. The Ofgem Retail Market Review[3] estimated that annual switching rates in 2010 were 15 per cent for gas and 17 per cent for electricity. Consumer Focus[4] found that switching rates in personal current accounts (PCA) were as low as 6 per cent and mobile phones were 16 per cent.

64. The average benefit to the consumer from switching in three products has been estimated at:

- Energy £100 (Ofgem)
- Personal Current Accounts £50 (OFT 2008)
- Post-pay mobile phones £171 (BillMonitor)

65. Allowing easier access to consumers' transaction data could lead to increases in the level of consumer switching. It is difficult to predict how switching rates could increase with midata but, to illustrate the scale of potential gains, the aggregate benefits to consumers from a 1, 2 and 5 percentage point increase in these switching rates has been estimated for three products.

Figure 6: Aggregate benefit to additional switchers by various sectors[5]

Aggregate one-off benefit to additional switchers (£ million)	Energy	Banking (PCA)	Post-pay mobile subscribers
Increase of 1 percentage point in the proportion of switchers	20	38	60
Increase of 2 percentage points in the proportion of switchers	40	48	119
Increase of 5 percentage points in the proportion of switchers	140	144	357

The benefits of instant switching

66. Midata might also help make switching quicker, because of the possibilities of automation using machine readable data. Some experimental research by London Economics has attempted to quantify the impact of time delay on consumer welfare. This found that welfare fell when there were time delays[6].

[3] http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR_Appendices.pdf

[4] Consumer Focus (2010) – Stick or Twist: An Analysis of Consumer Behaviour in the Personal Current Account Market

[5] For example if a 1 percentage point increase in switchers represented 200,000 new consumers, who each make a saving of £100 then aggregate saving would be £20 million.

[6] http://stakeholders.ofcom.org.uk/binaries/consultations/consumer-switching/annexes/economics-research.pdf

Increases in Competition and Innovation

67. Midata should empower consumers through the enhanced ability to search (overcoming imperfect information) and choose tariffs, which should serve to heighten competition between firms and improve the overall efficiency of resource use.

68. In the literature review, ICF/GHK note that 'in poorly functioning markets where consumers are not empowered (e.g. poorly informed or incentivised consumers make 'bad' choices) these markets are more likely to remain on a low growth path as the competitive process is likely to be constrained with businesses becoming complacent and inefficient.' Conversely, 'Enhanced decision-making by active consumers with the confidence to engage in markets can have a significant impact on the competitiveness of the economy, by acting as a driver for long term economic growth through intensifying competition and innovation (European Commission 2011[7] and OFT 2011[8]).'

69. The OFT (2011)[9] note that competition is well understood to be a key factor in driving growth, both through decreasing 'x-inefficiency' within firms and ensuring that more competitive firms gain market share at the expense of less competitive firms. They cite evidence to support this, including that between 20 to 40 per cent of total factor productivity differences between eight OECD countries can be explained by firm entry and exit[10].

70. Therefore, there is a clear theoretical link between consumer empowerment and competition (and ultimately economic growth). However, largely due to the difficulty of identifying outcomes and the relative novelty of the midata concept, there is little in the way of quantitative evidence to estimate the extent to which midata directly contributes to consumer empowerment and the growth impact of empowerment.

New and Expanding Infomediary Markets

71. The internet has opened up new markets for providing information to consumers. A survey by the OFT in 2009[11] estimated that 60 per cent of internet shoppers used a price comparison site to find/search for goods or services to buy online and, of those, the proportion that used more than one price comparison site was 71 per cent. It is clear that midata has potential to expand the range of services that will be available to consumers based on the newly available type of information.

72. There is a lack of substantial evidence about the potential size of the infomediary market but discussion with a number of firms already in the market has enabled an estimate of market size. One large price comparison site (PCS) estimated the value of the PCS market at around £500-600m. Midata may lead to an expansion in the size of this market, either through the expansion of existing firms or through new entry. The same firm said that an alternative way of looking at the market would be to consider PCS share of overall sales. For example, in the home insurance sales market, around 60% of sales are done online, with around 60% of those sales being done through PCSs. They also claimed that midata could improve and extend the PCS market, for example by offering bespoke services to individual consumers. Some incumbents said barriers to entry are quite high because of the need for high brand awareness among consumers.

73. A software editor company saw the main barrier to entry in the PCS market being technical expertise. New entrants needed the ability to develop highly complex platforms and there was a limited pool of individuals with such skills, however, expansion by firms in related markets may find it easier. The same company saw midata as having the potential to create much more demand for their services, through higher public awareness of data value.

74. However, these views on barriers to entry may only apply to the vertical-search style PCS market. Entry in other infomediary markets is likely to be much easier; primarily because many of

[7] Consumer Empowerment in the EU, Commission Staff Work Paper (2011)

[8] Competition and Growth (November 2011)

[9] OFT (2011) – Competition and Growth

[10] Nickell, S.(1996). 'Competition and Corporate Performance'

[11] OFT (2009) – Findings from consumer surveys on Internet Shopping

these markets are currently in their infancy and midata can be expected to make them significantly larger.

75. Although switching and infomediary services are the most easily quantified benefit of midata, the real value will come from new services enabling people to interact with their consumption behaviour in many innovative ways. During the consultation we spoke to a number of firms who have developed a range of products and services, the type of which, we expect to become much more common as a result of midata.

Existing examples of data usage

In Finland a leading grocery firm has coupled with a third party to provide customers with a breakdown of the nutritional content of their shopping basket via data collected through their loyalty cards. This provides a real time weight and diet management tool for individuals and families[1].

We spoke to one firm which provides a platform to financial institutions and intermediaries, which can be used by consumers to aggregate all their online financial accounts and receive financial advice. The firm has around 400 banks as customers globally, and over 40 million users. 8 out of the top 10 US banks use the service but there has been little interest so far from UK banks. The firm felt this was because the UK banking sector is not competitive and has little incentive to innovate.

Another firm we spoke to have developed a platform which takes information on a bank statement and combines it with information from the merchant's point of sale service, that is, what you see on the receipt "5 October, Cadbury's Crunchie, Tesco, 79p". Customers can access this data in real time. The product will be released next year with a focus on business customers - expenses claims can be made effortlessly and without the need for paper receipts. And VAT reclaims can be calculated automatically. The banks and merchants also get more insight into their customers, and are able to target them with offers based on their actual spending habits.

A firm which measured sales volumes of financial services in various markets confirmed that over the last five years the share of sales through PCSs had greatly increased. This firm saw potential for midata to help consumers stay informed where technological developments influences price. For example, telematics, which record a driver's behaviour and sends data direct to the insurance firm, are increasingly being used. This allows the firm to offer a premium based on an individual driver's performance. At the moment that data is not available to consumers, or other insurers, giving the incumbent insurance provider an advantage. Under midata an individual would be able request the data and use it when renewing their insurance policy.

There are more of these types of services in the United States. For example Mint[2] is a service which puts information about financial accounts into one place. This means people can set a budget, specific saving goals. One in 8 households in the US uses Mint to better understand how they spend their money.

In the UK we are starting to see more of these types of services developing, for example Tictrac[3] pulls together data from a range of sources to build up a complete picture of an individual. Tictrac it 'lets you discover more about yourself, by showing you all of your activities in one place'. One example of which could be comparing your blood pressure with the number of emails and meetings you have[4]. Tesco are also developing Clubcard play which will allow Clubcard holders "simple, useful and fun" access to their own data to allow them "plan and achieve their goals"[5]

1 www.tuulia.fi/corporate.htm

2 www.mint.com

3 www.tictrac.com

4 www.wired.co.uk /news/archive/2012-02/10/tictrac-personal-analytics-beta

5 www.marketing magazine.co.uk/news/1152799/tesco-plans-open-data-clubcard-play-scheme/

76. As previously indicated, the qualitative findings suggest that consumers will need to be primed on the personal benefits of applications to their lifestyle, and also reassured (with Government in a leading role) that their security will not be compromised. However, we note that consumers expressed similar concerns about internet shopping security in the OFT Internet Shopping Market Study but growth in that sector remains significant. Moreover, the success of existing comparison sites sets a good precedent that consumers will be willing to use personal transaction data made available to them through midata to search for better deals.

77. It has long been recognised that markets are becoming increasingly complex, and regulators have to work harder to empower consumers in the face of this complexity. The direction of travel in some sectors may be towards more specific product interventions.

78. In their Discussion Paper 11/1[12], the FSA recognise that consumers had not used 'mandated disclosures' (requiring firms to provide standardised information to consumers) in the way they had anticipated. As a result, they suggest that products designed to exploit particular consumer traits (such as lacking information, not using information, and being obstructed from making accurate judgements on price and quality) may require additional regulatory (product) interventions.

79. Midata, and the emergence of more choice tools, can help to overcome some of these consumer traits, reducing the need for additional product interventions. However, no attempt has been made at this stage to estimate either the future counterfactual regulatory burdens or the potential regulatory easement as a result of this policy.

Changes in Consumer Patterns

80. As well as helping consumers compare tariffs there is expected to be a wealth of uses for midata to help individuals analyse their consumption that do not involve switching but, rather, improvements to spending, lifestyle etc.

81. There are many examples of behaviours that appear contrary to self-interest especially where self-control is required, for example around diet and lifestyle. Richard Thaler and Cass Sunstein[13] argue that greater transparency in credit card statements would give customers a better sense of what they are paying for (e.g. itemised interest and late payment fees), and help overcome payment inertia. Midata can be expected to have a similar effect by facilitating greater transparency.

82. The social impacts of such nudges are potentially large, but uncertain and dependent on the development of the market for such information. Some examples include:

    - analysis of groceries purchases to help consumers analyse consumption of salt, sugar, fat etc. To be most useful this would require a complete or near complete analysis of all consumption which would be more difficult if an individual eats food bought from a variety of retailers and restaurants.
    - analysis of energy consumption to minimise cost and carbon
    - analysis of bank statements to help assess spend on particular categories such as eating out

[12] http://www.fsa.gov.uk/pubs/discussion/dp11_01.pdf

[13] Thaler, R and Sunstein S. - Nudge

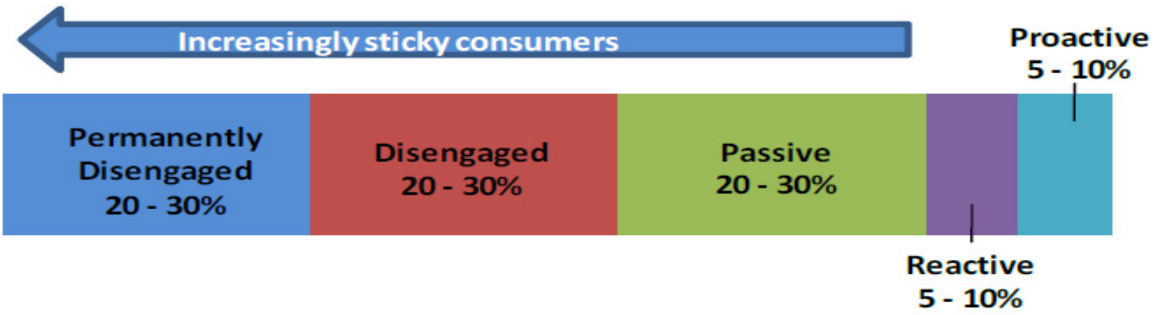
Equality and Diversity

83. The Jigsaw research[14] found there were two groups of people for whom midata appeared to have the most potential appeal:
    - Savvy consumers: i.e. regular users of price comparison/switching sites, and those who are generally well-organised in terms of their financial/life affairs
    - Those who would benefit from greater control: i.e. those who are time poor and do not feel on top of their financial/life affairs

84. The barriers to benefits from release of personal transactional data appear to be greatest for less confident and less active internet users, who in turn are more likely to be older (particularly 65+). In addition to having greater concerns about data security, the older audience often had already well-established systems in place for managing their data which they were reluctant to change.

85. Ofgem[15] segmented energy consumers into five separate groups in terms of their attitudes and behaviour towards engaging with the retail market. The 'permanently disengaged consumers' claim to have never switched supplier and are unlikely to switch in the future. Ofgem believe that many of these 'sticky' consumers are likely to be vulnerable consumers, i.e. more likely to live in social housing, be over the age of 65, and be of lower socio-economic groups.

Figure 7: Ofgem's segmentation of energy consumers, in terms of their attitudes and behaviour towards engaging with the energy retail market



86. The ICF/GHK literature review suggests that 'Low-income consumers have more limited access to mainstream financial services products, the internet which is a source of information, financial management, and the cheaper prices for many on higher incomes, resulting in those on lower incomes paying additional costs or a 'poverty premium' (Burton 2009[16]). This was estimated in 2010 to be in the region of £1,280 a year.'

87. Evidence from the Unites States shows that prices can vary according to ethnicity, gender, and neighbourhood deprivation. A study by Susan Woodward (2008) on loans insured by the Federal Housing Administration found that African-American borrowers pay an additional $425 for their loans. Latino borrowers an extra $400, and borrowers who live in neighbourhoods where adults have only a high school education pay $1,160 more for their loans.

88. Online tools may help overcome some of this apparent price discrimination. A study of automobile shopping[17] found that women and African-Americans pay about the same amount as white males when they buy a car online, but at the dealership they pay more, even after you account for other factors, such as income.

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[14] http://www.bis.gov.uk/assets/biscore/consumer-issues/docs/p/12-976-potential-consumer-demand-for-midata

[15] http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR_Appendices.pdf

[16] Burton, M. (2009) – Making Ends Meet: The costs and implications of money management for low-income consumers

[17] Scott Morton, F., F. Zettelmeyer, and J. Silva-Risso (2003)

89. Midata has the potential to help some of these groups of people, by making it much easier to get access to accurate transaction data, intermediaries will be able to work with consumers to make switching easier than it currently is, an example of one possible approach is the Which? Big Switch. Increasing use of online choice tools levels may help to level the playing field and empower groups who would otherwise face price discrimination and consumer detriment. On the other hand, in the short term midata may act to widen the digital divide between the technology savvy and some of those who are less confident with the internet.

Benefits Summary

90. We argue that there are the following benefits categories from midata. There is strong evidence for some but less for others as a result of innovative nature of midata.
    - Empowerment benefits
        - Cost savings to consumers;
        - Increases in competition and innovation;
        - New and expanding 'infomediary' markets;
        - Less prescriptive product/tariff regulation;
    - Consumption benefits
        - Changes in consumption patterns.
91. There is a variety of evidence which demonstrates the potential savings to consumers, the nascent market for personal information and analytics, and a well founded theoretical link from consumer empowerment to competition and productivity increases. Due to the innovative nature of midata, there is a lack of evidence to predict these benefits in any quantified way. However, the sensitivity modelling in the sector scenarios demonstrates that only very small changes in switching behaviour are required to deliver large consumer benefits which far outweigh the costs of midata.

Costs

92. To elaborate the scale of costs, this section contains case studies of costs for businesses from the use of the power in a variety of sectors. The estimates and case studies are illustrative and do not mean that the Government has specific plans to use the power in the sector.
93. The proposed legislation in this IA is an enabling power. There can be neither costs nor benefits until the power is used via secondary legislation when the IA process will apply again. At this stage the sectors where the power may be used is unknown. However, the case studies are provided to illustrate the scale of cost.

Research method

94. Costs estimates were gathered through
    - Survey Monkey: Almost 400 businesses and individuals responded to the consultation via Survey Monkey. Officials followed up many responses with in-depth conversations about costs.
    - Forums: BIS ran five open forums with over 60 representatives from business, sector regulators and trade associations.
    - One to one conversations: A large number of Trade Associations and businesses were contacted directly by BIS including in banking, insurance, mobile telephony, retail, transport, energy.

95. This section contains the summary of the one off and ongoing cost estimates and the case studies provide the detail.

- **One off**

96. One off costs to businesses can be classified in to two categories 1) businesses that already held the data in an electronic, machine readable format and had to make little change to make it available to 2) where the transaction data is not already in a form suitable for sharing with customers in an electronic, machine readable format and significant changes would be necessary.

    - 1) Where the data is already in a suitable form the additional costs are not significant because no significant changes are required to make it ready and available. This was only the case for a minority of the businesses responding to the consultation.
    - 2) Where the data is not already in a suitable form the costs vary by the extent of the required change. For example many retailers collect a large amount of information on consumers spending habits in order to provide special offers. The data storage and management of these systems was not designed for use by the consumer and so would involve a significant investment in IT infrastructure. In contrast, several mobile phone companies provide summaries of billing and usage to online users in a PDF format. The cost of changing this information into a portable format would not be as significant a cost change, but would depend upon the exact specification requested. This was the case for the majority of businesses responding to the consultation.

97. Figure 8 summarises the one-off costs suggested by businesses we spoke to across a range of sectors. There is a significant degree of uncertainty around these figures, and in most cases they represent businesses' own early estimates of likely costs. Using all the cost information from both categories of business, with around 15 per cent of firms in category 1) and around 85 per cent in category 2), aggregate one-off costs were estimated for three sectors. More work and further impact assessments would be needed to quantify these costs at the point when Government took the power in relation to a particular sector through secondary legislation.

Figure 8: Summary of one off costs in various sectors

Sector	Large Business (£ million)	Large Business Cost per consumer (£)	Small Business (£ million)	Small Business Cost per consumer (£)	Aggregate one-off cost to business (£ million)
Retail	0 - 5.00	0.2 - 0.3	0 - 0.10	0 - 2.00	n/a
Banking (PCA)	0 - 1.00	0.06	n/a	n/a	6.00 - 7.00
Energy	0 - 0.25	0.03	n/a	n/a	0.67
Post-pay mobile phones	0 - 2.00	0 - 0.23	n/a	n/a	9.00 - 10.00

98. The major costs to business of the new power will be those associated with changing IT systems to convert personal transaction/consumption data to the relevant form where it is not already in that form. These costs would largely be one-off costs to business and would vary according to the sector, size of the business involved and nature of their data collection systems.

99. The categories of cost were reported to be designing a user interface, investment in IT hardware to present information in a secure manner and installing, commissioning and testing of the facilities system.

100. **Large businesses**: In the case of large businesses the investment is relatively small compared to their consumer base with the cost per consumer estimated at £0.16. This estimate was gathered from 16 large businesses with a combined total over 100 million customers. The

one-off cost estimated ranged from zero to £5 million. With the zero costs from businesses that were relatively newer entrants who possessed IT infrastructure with this functionality built in so the data was more or less readily available already.

101. **Small businesses**: Providing a similar service would be relatively more costly for small businesses. BIS contacted 8 small businesses. They quoted costs of negligible to £100k for customer numbers of 200 to 50,000. Those firms that quoted the smallest figures were often web based businesses that were already, in their view, midata compliant.

102. Small businesses in the retail sector estimated the cost of investing in the IT infrastructure and providing the information instantaneously to consumers at an average of £2 per consumer which is 10 times greater than large businesses. Small businesses reported that providing the information instantaneously, at the click of a button, was a major part of the costs. If the information did not have to be provided instantaneously the cost would be substantially less.

- **Ongoing**

103. The ongoing/administration costs to business for making personal transaction/consumption data available to customers varied across sector. For example in the banking industry the ongoing costs were said to be small as the release of data can be automated and absorbed in to existing IT budgets. But the costs are likely to vary across sectors depending on the demand from consumers.

104. **Large businesses**: Banking, mobile phones and energy firms stated that the ongoing cost of providing this service is likely to be low and would be part of overall IT strategies. Using consultation responses it is possible to estimate aggregate ongoing costs of £0 - £1.7 million in the banking sector, £0.80 million - £2 million in the energy sector and £0.9 million in the post pay mobile phone market. However, retailers estimated that the ongoing cost of providing midata would be higher and could be as much as £0.06 per customer or up to £2 million per business.

105. **Small businesses:** stated that the ongoing cost of maintaining the IT infrastructure would be relatively larger. Small businesses have had very few subject access requests and the total reported ongoing cost of providing an instantaneous service would be £46,500 per annum, for the 66,700 customers the responding small businesses had.

106. The annex contains case studies that provide further detail of the cost to business of making personal transaction/consumption data available to customers.

Figure 9: Summary of ongoing costs in various sectors

Sector	Large Business (£ million)	Large Business Cost per consumer (£)	Small Business (£ million)	Small Business Cost per consumer (£)	Aggregate ongoing cost to business (£ million)
Retail	0 - 2.00	0 - 0.06	0 - < 0.10	0 - 0.70	n/a
Banking (PCA)	0 - 0.50	0 - 0.03	n/a	n/a	0 - 1.7
Energy	0 - 0.25	0.02 - 0.04	n/a	n/a	0.8 - 2.00
Post-pay mobile phones	0 - 0.25	0 - 0.02	n/a	n/a	0.9

Costs and additional switchers

107. Allowing easier access to consumers personal transactions data should increase the level of switching that occurs across products. Using the scenarios from the benefits per additional switcher in Figure 6 and cost information from the consultation shows the cost to business per *additional* switcher.

108. For example, for a one percentage point increase in switchers in post-pay mobile subscribers, the cost is £27 per additional switcher. However post-pay mobile also had the highest benefits per switcher at £171 (See Figure 6).

Figure 10: Cost to business in various sectors per increase in switchers

One-off cost to business per additional switcher (£)	Energy	Banking (PCA)	Post-pay mobile subscribers
Increase of 1 percentage point in the proportion of switchers	3	8	27
Increase of 2 percentage points in the proportion of switchers	2	7	13
Increase of 5 percentage points in the proportion of switchers	0.5	2	4

How costs vary with midata scope

109. Businesses reported that the cost of making midata available would vary from very low to high depending on what exactly the legislation required. The following factors were said to be important

- **Speed of response**: Small businesses reported that making midata available instantaneously would involve significantly higher costs than responding within a week or longer. Keeping within the existing data protection legislation of providing the data in 40 days and simply adding in the electronic format could be implemented at negligible cost.
- **Period of midata**: businesses of all sizes reported that they often kept data for a year or so, hence making that duration available would not be significantly costly. However, if the requirement was for longer than a year then the cost would be significantly higher.
- **Retrospective implementation**: Some businesses of various sizes reported that retrospective data, before the date of implementation, would be much more costly than making midata collect from the data of implementation.

Product scope

110. Some goods and services are only purchased by consumers on an infrequent basis, such as durable goods and white goods. These are often relatively large expenditures and consumers are more likely to shop around before making these purchases. Often the transaction information is stored by businesses for targeted marketing or record keeping. Instantaneous consumer access to this information in a portable format may not yield benefits for the consumer because of the significant time lags between purchases. And it would likely exceed the cost of IT infrastructure for the firm.

Costs summary

111. The average for small[18] business was estimated at £2 per customer one-off and £0.70 ongoing. The average for large business overall was estimated at £0.16 per customer and £0.03 ongoing. Where businesses already collect the data in the relevant form the additional costs will be low. However, costs were higher in cases where more changes are needed to be made to IT infrastructure.

[18] Only small retailers provided costs in the consultation.

112. The one off cost to business per additional switcher was highest for post pay mobile phone firms and very high for small increases in consumer switching.

Comparing costs and benefits

113. **Costs:** Small increases in the proportion of switchers is sufficient to exceed the one-off costs to business for providing midata in the banking, energy and post-pay mobile phone market. A one percentage point increase in switching is estimated to provide an aggregate benefit of £38 million, £20 million and £60 million respectively. The one-off costs in the energy sector are small at less than £1 million. The banking sector has higher costs at £6 - £7 million. The highest costs from the three sectors examined are the post pay mobile phone market at £9 - £10 million. However, after combining costs and benefits the post-pay mobile phone market is estimated to have largest net benefit from midata. Larger increases in the proportion of additional consumers that switch yields even larger net benefits.

114. The estimated one-off cost per switcher is lowest in the energy and banking industry at £3 and £8. The highest amounts were in the post-pay mobile phone market at £27 per additional switcher. This sector also had the highest average benefit per switch at £171.

115. Ongoing costs to providing data are moderate and combined with the one-off costs means that over a 10 year period the total cost to business in present value terms is estimated at £16 million in post-pay mobile phones, £13 million in banking and £11 million in energy.

116. **Benefits:** The static one-off benefit is not likely to be repeated by consumers every year. Assuming that the benefit to consumers remains fixed would not allow for any dynamic changes in the amount of savings a consumer would make. If businesses respond by reducing differences between firms and across tariffs then the average saving to consumer will shrink. So, the average benefit to additional switchers is assumed to decrease by a proportional amount until zero after 10 years. This is a very simplified assumption and does not take account of many other changes that would be occurring in these sectors such as more empowered consumers increasing competition in the market.

117. Even with the benefits to consumers going to zero after 10 years the net benefit in the three sectors are large, at £249 million in post-pay mobile phones, £155 million in banking and £77 million in energy.

118. The resulting equivalised annual net cost to business for the three sectors is estimated at:

- Banking (PCA) £1.5 million
- Energy £1.3 million
- Post-pay mobile phones £1.9 million

Figure 11: Comparison of costs and benefits from additional switchers in various sectors

	Banking (PCA)	Energy	Post-pay mobile phones
Aggregate one-off costs to business (£ million)	**6 - 7**	**0 .67**	**9 - 10.00**
Aggregate ongoing costs to business (£ million)	**0 – 1.7**	**0.80 - 2.00**	**0.9**
Aggregate one-off benefit to additional switchers (£ million)			
1 percentage point increase in proportion of switchers	**38**	**20**	**60**
2 percentage points increase in proportion of switchers	**48**	**40**	**119**
5 percentage points increase in proportion of switchers	**144**	**140**	**357**

	Banking (PCA)	Energy	Post-pay mobile phones
Equivalised annual net cost to business per year (£ million) (Value of the IN)	**1.5**	**1.3**	**1.9**
One-off cost per additional switcher (£)			
1 percentage point increase in proportion of switchers	**8**	**3**	**27**
2 percentage points increase in proportion of switchers	**7**	**2**	**13**
5 percentage points increase in proportion of switchers	**2**	**0.5**	**4**
Average benefit per switcher (£)	**50**	**100**	**171**

	Banking (PCA)	Energy	Post-pay mobile phones
Total COST net present value (£ million)	**13**	**11**	**16**
Total BENEFIT net present value (£ million)	**168**	**88**	**265**
Total net benefit (£ million)	**155**	**77**	**249**

Enforcement of the duty

119. The main enforcement anticipated would be where a customer has requested their electronic transactional data but it has not been provided. In the first instance we would expect the customer to pursue a complaint with the business in question including exhausting any alternative dispute resolution procedures that might be available. If they are unable to get a satisfactory response then they would refer the complaint to the Information Commissioner's Office (or other regulator, e.g. a sector regulator, if appropriate). There are several potential ways that this enforcement action could be funded with the exact details being determined in advance of secondary legislation being brought forward and will be specified in future impact assessments.

Risks

- **Chilling Market**

120. The consumer transaction data held by firms is valuable commercial information. There is a risk that the existence of a power to compel firms to release this data to consumers may reduce their incentive to collect the information if it is not essential in order to provide the service e.g. in order to bill the customers. This may result in consumers only having a partial picture of the sector when using their data to compare firms, reducing or chilling the competition within the market. The size of any chilling effect depends on whether businesses perceive the benefits of collecting and using data to inform their business strategy outweighs the costs of collecting the data and supplying it to customers who request it.

121. A key principle of the Data Protection Act is that personal data should only be collected if there is a justifiable purpose. The order making power does not alter this and only affects the method by which the information should be transmitted to the consumer, requiring that the information be in a machine readable format.

122. The intention is that regulations made under the proposed power will minimise this risk by requiring the disclosure of 'raw,' factual data only and not any of the subsequent analysis which businesses perform on this data.

- **Information security**

123. Consumers will increasingly have more of their information in an easily accessible format. With increasing amounts of this data held on home computers or with third party intermediaries, it may increase the likelihood of identity theft or fraud. This may lead to consumers increasing their own cyber security to mitigate this risk. The Government and members of the midata Interoperability Board are undertaking a programme of work to identify and address these issues, which will conclude before any secondary legislation is brought forward.

- **Homogenous product characteristics**

124. With an increasing emphasis on price comparison there is a risk that consumers will excessively focus on product characteristics that can be codified (mainly price) to the detriment of more intangible features such as quality. If consumers focus only on price then this may skew the market and undermine other factors or consumers may ignore important factors. This is an existing risk of price comparison but midata could increase the propensity. Measures to addresss this risk will form part of the midata Interoperability Board's programme of work referred to above.

- **Network effects and dominance**

125. It is conceivable that there could be strong network effects from the collection and use of personal transaction/consumption data. For example one intermediary platform might become dominant if it is increasingly attractive for users to use the largest and most comprehensive platform. Relevant examples include eBay and Google. However, this risk is low and far off in the future and competition law exists to tackle dominance.

Conclusion

126. Enabling consumers to request their personal transaction history from businesses in a portable machine readable format should help

    - 1) empower consumers who will be better able to compare complex tariffs and switch to better deals therefore stimulating competition (the '**empowerment effect**') and
    - 2) enable consumers to improve their consumption patterns by analysing their consumption and associated costs over time (the '**consumption effect**').

127. It is expected that existing and new intermediaries will provide consumers with novel and innovative personal data services that use the data.

128. The cost to businesses that already hold data in a suitable form is low although costs will increase with greater demand for the service. Businesses that do not hold personal transaction data electronically and micro businesses will not have to provide it.

129. The benefit to consumers in banking, energy and post-pay mobile phones will exceed the one-off costs to business from providing midata for even small increases in the proportion of consumers that switch.

130. In some sectors, for example retail, the benefits to consumers might not exceed the costs to business. Small retailers in particular may have very high costs per consumer. Goods and services only purchased on an infrequent basis by consumer such as durable and white goods may not yield sufficient benefits to consumers because of the significant time lags between purchases.

131. The net benefit in the post-pay mobile phones, banking and energy was estimated to be large, at £249 million, £155 million and £77 million respectively. In these three sectors it was estimated that the equivalised annual net cost to business was:

- Banking (PCA) £1.5 million
- Energy £1.3 million
- Post-pay mobile phones £1.9 million

One in One Out

132. This primary legislation with enabling powers but no direct impact on business is out-of-scope of OIOO. Whenever the power is used in secondary legislation new scrutiny and impact assessments will be required. The power itself does not imply any costs to business.

Micro business exemption

133. The duty to release personal transaction/consumption data to consumers would only be applicable to firms that already hold this data electronically. Micro businesses are unlikely to hold this information because the cost to them is likely to exceed the benefits or they may not have ongoing formal relationships or accounts with their customers. The consultation established that the cost to micro businesses from providing personal transaction/consumption data could substantially exceed the benefits. Therefore they will be exempt from providing the data to consumers. Some micro business will benefit from providing the data on a voluntary basis and will do this when the benefits exceed the costs.

134. Micro businesses could also benefit from accessing their own transactions data from a supplier, i.e. a business to business transaction. The consultation established that the storage of business accounts is often on very different IT systems to consumer accounts and would increase the cost to business for providing midata if business to business accounts were within scope. On balance, the potential benefits to micro business merit their inclusion in the power to request midata from businesses.

Annex: Case Studies

Case Study: Energy

Benefits

Price comparison: Energy tariffs can vary by volume of units, time of day and include fixed elements it can be complex to compare costs.

Risks

Potential Misuse of data: Allowing easier access to data on home energy use, if misappropriated could potentially be used by criminal elements to know when homes are unoccupied. This could lead to an increase in theft of household property.

Costs

As part of the midata program energy companies have committed to providing consumer's transaction data in electronic format in 2012. Therefore if the order making power was used in the energy sector there is likely to be little or no additional cost to business from the policy. The consultation received responses from all the major energy companies in the UK with 4 providing the one of project costs of converting consumers' transaction data in to machine readable format: These firms reported costs of £425,000 and represented 63% of domestic energy suppliers.

Therefore the total cost to the energy industry can be estimated at **£670,000.** With 26.7 million customers this equate to a cost per customer of around £0.03.

The ongoing costs of providing midata would depend on the level of consumer demand. Low levels of consumer demand would lead to negligible costs that would not be differentiated from ongoing IT infrastructure expenditure. While high demand would lead to higher IT infrastructure and staff support costs. One firm estimated the ongoing cost to business at between £100,000 and £500,000. However, other energy companies felt that ongoing costs would be relatively small but did not provide estimates, so on balance these estimates would seem high.

Case Study: Personal Current Accounts/Credit Cards and other banking services

Benefits

Price comparison: It will be easier for consumers to compare the different levels of interest, fees and other charges that would have been paid on their transactions by alternative Banks and Building societies.

Money Management: Having a portable summary of transactions will allow consumers to improve budgeting and monitoring of transactions, for example, consumers may be able to avoid becoming overdrawn.

Search and matching of consumer and supplier: There are costs in time delays and administration for consumers and businesses from financial product applications. Consumers that can provide an authentic history of their past transactions could reduce time delays on applications and decrease administrative burdens on business.

Risks

Authenticity of data: Before businesses could use consumers' credit card transaction histories as a means of reducing admin costs from applications, businesses would have to be able to trust that the source of data had not been altered to favour the consumer. Otherwise there is an increased risk to businesses of consumers using products that are unsuitable or unaffordable**.**

Cost

The UK Cards Association told us that the majority of the banking industry already has a similar functionality to provide transaction histories to consumers in a variety of formats. The changes were brought in over a number of years in line with other enhancements in on-line banking.

However, banks have told us that increases in demand for services would create extra costs. Therefore there would be some additional cost to personal current accounts and credit cards business if the power was limited to these products. To provide this functionality for all the major high street lenders would involve investment in IT infrastructure at an estimated cost of **£6 - £7 million**. This functionality is often not available for other types of financial products such as mortgages or loans and there would be higher costs for providing these services.

Major high street banks representing 46% of the current accounts and 32% of credit cards, estimated that the cost of providing IT infrastructure for additional financial services **at over £1 million**. This equates to a cost per consumer of less than £1, this estimate was corroborated by an IT infrastructure firm that provides midata compliant systems to the financial sector.

Case Study: Retail

Retail is an example where the benefits to consumers of midata may be large but the risks to businesses may also be significant.

Benefits

Price comparison: Where a consumer buys all or nearly all their products on a type from one retailer then it may be possible for them to compare the benefits of switching.

Non-price comparisons: In groceries, for example, midata could be used to analyse food consumption for example calories, salt.

Risks

Asymmetries: Where some retailers have invested and collect data (such as membership/loyalty schemes) and make it available they may be at a disadvantage to retailers that do not collect the data. Customers of retailers that collect the data may be able to compare the price of retailers that do not collect data but not vice versa. This could introduce an asymmetry.

Price comparison: Where consumers purchase products from a variety of retailers, make purchase for others such as gifts etc and generally do not have a 1-to-1 relationship with the retailer the cost to consumer of compiling and editing midata from a variety of sources may be so high as to make it impractical.

Quality: Where products are not homogenous (such as energy or water) quality may be an important consideration for consumers. Quality (and other relevant characteristics such longevity, add on charges etc) is not always easy to codify. There is the risk that competition could focus on price to the detriment of quality and other characteristics. However, price comparison already may do this so midata may not alter this trend significantly.

Costs

The British Retail Consortium told us that the cost to business would be significant and would likely exceed the benefit to consumers. Eight retailers responded separately and were able to provide cost estimates. The one off costs of installing IT infrastructure would in many cases be quite large, with estimates ranging from **£0 - £5 million** for a retailer with a large membership/loyalty scheme. The large customer base of these retailers means that these costs would be spread over many consumers and has been estimated at **less than £5 per consumer.**
The ongoing costs of providing midata were smaller at less than **£0.10 per consumer**, although retailers told us that the costs would increase with higher demand.

Case Study: Telecoms

Benefits

Price Comparison: Consumers will be able to use their phone usage to compare tariffs, which will allow them to closer align their preferences with the available tariffs, allowing consumers to make savings.

Risks

Potential Misuse of data: Allowing easier access to data on phone usage, if misappropriated could potentially be used to inappropriately switch consumers out of existing contracts. This form of mis-selling, known as slamming, may increase consumer detriment.

Costs

The telecoms market is made up of fixed line and mobile phone providers and consultation responses were received from firms present in both parts of the industry. The information collected for pre-pay and post-pay mobile users often differs significantly in keeping with their very different requirements from mobile phones. Pre-pay customers can get summaries of text messages, calls and data usage. In addition to these, post-pay users often have more extensive information available to them relating to allowances and other optional services. Three of the four major mobile phone networks in the UK responded to the consultation and told us information regarding billing and usage information is often available to online users, but is some times not available in a portable format. Two telecom firms were able to provide us with costs and told us that the cost of providing this functionality would depend upon the degree of detail required. In the case of **pre-pay users**, the one off costs of providing a summary of existing information held online in a CSV format would cost up to **£0.25 million per firm**. A more detailed itemised listing of usage would cost up to **£2.5 million per firm**. Aggregating this to represent the whole of the pre-pay market means the cost to business would be **£0.9 million** for a simple CSV format summary and **£9 - 10 million** for a more complex itemised listing of usage.

The larger and more complicated data held on **post-pay customers** means the one-off costs of providing midata for post pay users is up to **£2.5 million per firm**. This equates to a one-off cost per consumer of between £0 and £0.23 and an aggregate cost to business of between **£9 - 10 million**.

Firms were also able to provide estimates of ongoing costs of providing midata in pre-pay and post-pay markets. In the **pre-pay** market it was estimated that the ongoing cost to business would be around **£0.1 million per firm**. The **post-pay** market estimated a similar level of costs per business of supporting midata at **£0.25 million**.

This equates to an aggregate ongoing cost to business in the **pre-pay market of £0.4 million** and **£0.9 million in the post-pay market**.

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